

REMARKS

Claims 1-39 were examined in the subject final Office action dated January 23, 2008. New claims 40-43 were not addressed. In response, claims 1-43 remain currently pending in the subject application and are presently under consideration. Claims 44-45 have been added as shown on pp. 7-8 of this Reply. Applicants assert that remarks made herein are supported by the original specification and do not introduce new subject matter.

Applicants further assert that the remarks made herein should be admissible after final in accordance with 37 C.F.R. §1.116. In particular, in the prior Reply, Applicants rebutted the prima facie case for obviousness by pointing out how the primarily cited reference of Grandolfo teaches away from the claimed invention. “It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983), quoted in *M.P.E.P.* §2145(X)(D)(2). This rebuttal is provided again below. In particular, although the Examiner has responded that Applicants’ arguments are moot given the new basis for rejection (i.e., relying in part upon newly cited reference Seshadri), Applicants assert that this new grounds does remove the argument for teaching away of Grandolfo. As provided above, Grandolfo cannot be properly combined with any reference, even a new one, when it teaches away from combining with an element relied upon in the other reference. Consequently, the subject final Office action is defective in failing to completely respond to Applicant’s Reply. The new grounds would have had to substitute another reference for Grandolfo to be properly made final on a second Office action in accordance with M.P.E.P. §706.07(a).

Applicants further assert that the subject Office action is defective in failing to consider new claims 40-43 submitted in the Reply. Admittedly, a typographical error annotated claim 40 as canceled. However, this was plainly an error and the claim was clearly meant to be examined as a new claim in light of numerous factors. First, claim 40 was not previously pending in the case and thus could not be canceled. Second, claims 41-43 were annotated as new and were not considered in the subject Office action. Third, the text of claim 40 was not deleted as would be appropriate for a canceled claim. Fourth, claim 40 was identified as being newly added on line 3 of page 8 of the Remarks. Fifth, claim 40 was argued as being allowable on line 15 of page 10 of the Remarks.

In the alternative, if this annotation of “canceled” is dispositive, then Applicants point out that new claims 42 and 43 did not depend from claim 40 and should have been examined. The subject matter of claims 40 and 41 are directed to the same apparatus features as new claims 42 and 43 but in method form and thus should be admitted.

I. Rejection of Claims 1-6, 8-11, 13-16, 18-25, 27-30, 32-35 and 37-39 Under 35 U.S.C. §103(a)

Claims 1-6, 8-11, 13-16, 18-25, 27-30, 32-35 and 37-39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Grandolfo (U.S. Patent No. 7,184,767) in view of Seshadri, *et al.* (U.S. Publ. No. 2005/0037818). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. The combination of Grandolfo and Seshadri fails to teach all of the claim limitations.

“Under 35 U.S.C. 103 where the examiner has relied on the teachings of several references, the test is whether or not the references viewed individually and collectively would have suggested the claimed invention to the person possessing ordinary skill in the art. It is to be noted, however, that citing references which merely indicated that isolated elements and/or features recited in the claims are known is not a sufficient basis for concluding that the combination of claimed elements would have been obvious. That is to say, there should be something in the prior art or a convincing line of reasoning in the answer suggesting the desirability of combining the references in such a manner as to arrive at the claimed invention... [I]t would not have been obvious to modify [the prior art] ... without using [the patent application’s] claims as a guide. It is to be noted that simplicity and hindsight are not proper criteria for resolving the issue of obviousness.” *Ex parte Hiyamizu*, 10 USPQ2d 1393 (BPAI 1988).

Claim 1 recites a method of communications from a piconet, comprising engaging in intra-piconet communications, receiving a pilot signal from a foreign terminal, determining that the strength of the pilot signal is below a threshold; and establishing a peer-to-peer connection with the foreign terminal.

In rejecting claim 1, the Examiner rightfully noted that Grandolfo failed to teach or suggest receiving a pilot signal from a foreign terminal; determining that the strength of the pilot signal is below a threshold, looking to Cheng at Col. 2, lines 20-40 for this feature. However, the combination fails to disclose the features of the claim as recited. In particular, neither cited reference addresses maintaining a high data rate by communication by reverting to a peer-to-peer communication when a threshold strength is not determined for the pilot signal. Grandolfo appears to look to the largest area that can be reached, connecting to whatever devices are within range. (See e.g., Col. 5, lines 25-42). Non-controller-capable devices must either join a network [even if this degrades the overall data rate of the piconet] or not communicate at all, going into an error state. (See e.g., Col. 9, lines 39-45).

It could be further argued that Grandolfo teaches away from requiring a power threshold before joining a piconet in order to maintain a high data rate of synchronous communication, while still affording a degree of communication by peer-to-peer communication to such foreign terminals. In Col. 4, lines 46-67, Grandolfo addresses the problems in the prior art for reliance upon wired backbones and the use of ad hoc networks limited to single piconets. Thus, Grandolfo seeks to connect piconets to increase the reach and interconnectivity, although this aim is at odds with maintaining a high data rate of any individual piconet.

In general, the rationale proffered to combine such teachings is to achieve benefits identified in applicants' specification, to overcome problems associated with conventional methods, etc. Applicants respectfully submit that this is an unacceptable and improper basis for a rejection under 35 U.S.C. §103. In essence, the Examiner is basing the rejection on the assertion that it would have been obvious to do something not suggested in the art because so doing would provide advantages stated in Applicants' specification. This sort of rationale has been condemned by the CAFC; *see, e.g., Panduit Corp. v. Dennison Manufacturing Co.*, 1 USPQ2d 1593 (Fed. Cir. 1987).

To correct the admitted deficiency of Grandolfo, the Examiner relied upon the teaching of Seshadri of Paragraphs 0011, 0040, and 0049 pertaining to determining that the strength of pilot signal is below a threshold.

[0011] In yet another embodiment, a method for supporting a universal wireless headset for ongoing communications begins by monitoring signal strength of

communications within a piconet that includes the headset and a device coupled to the network. The device coupled to the network may be one of the host devices of the headset or any other device in the network. If the signal strength compares unfavorably with a threshold (e.g., signal strength is below an acceptable signal strength level of, approximately -80dB or -85 dB), another device coupled to the network is identified. Once the other device is identified, a piconet is established between the device and the headset. In addition, a logical connection may be established between the new device and a host device supporting the communication. Accordingly, a universal wireless headset is provided that extends the mobility of the user, extends the range of the headset and expands on its functionality.

[0040] The determination of when to handoff an ongoing communication may be based on the signal strength of wireless communications within the currently established piconet. Accordingly, the wireless headset 12 may monitor the signal strength of signals received from access point H. In addition to or alternatively, access point H may monitor the signal strengths of signals received from wireless headset 12. When the signal strength drops below a desired threshold (e.g., -80 to -85dB), the administrative controller determines that the ongoing communication needs to be handed off. Having made this determination, the administrative controller 62 then determines, from the corresponding tables, which device, or access point, to hand the communication off to. In this example, it will determine that device K is to facilitate the ongoing communication. In this instance, prior to ending the piconet with access point H, the universal wireless headset 12 establishes a piconet with device K. With the piconet established with device K, and/or simultaneously with the establishment of the piconet, the administrative controller 62 establishes a new link between device K and device C. Once the new link and new piconet are established, the communication is switched to the new link and new piconet and the old link and old piconet are deactivated.

[0049] FIG. 8 is a logic diagram of another method for supporting a universal wireless headset. The method begins at Step 120 where signal strength of communications in a piconet are monitored. The piconet includes the universal wireless headset and a device coupled to the network. The process then proceeds to Step 122 where a determination is made as to whether the signal strength compares unfavorably to a signal strength threshold (e.g., is below a threshold of -80 to -85 dB). If not, the process continues to loop at Steps 120 and 122.

Applicants assert that each of these excerpts clearly teach that the threshold determination is used for a handoff from one piconet to another piconet to extend the range of a mobile device (i.e., headset). The combination of Gandolfo and Seshadri either singularly or in combination still fail to address the problem of how to deal with the problem of continued communication with the same foreign terminal, reverting between registered piconet member communication

and peer-to-peer communication in order to not adversely affect intra-piconet data transmission rates yet maintaining some level of communication with this foreign terminal. Thus, significant modifications would be required in order to be applied to the deficiencies of Gandolfo and Seshadri in order to realize the claimed invention. Consequently, the cited references either individually or in combination fail to render claim 1 unpatentable. Reconsideration and allowance of claim 1 is respectfully requested, as well as for claims 2-19 and 40-41 that depend there from.

To further clarify this distinctive handling of the problem, new claim 44 that depends from claim 1 recites how the communication is handled when the strength of the pilot signal is *above* the threshold, registering for piconet communication.

Similarly, claim 20 is directed to the features of claim 1 but in apparatus form and was rejected on the same basis. Thus, for the reasons given above, claim 20 is patentable over the cited references. Reconsideration and allowance of claim 20 is respectfully requested, as well as for claims 21-38 and 42-43 that depend there from. New claim 45 that depends from claim 20 recites in apparatus form the feature of new claim 44 of handling when the strength of the pilot signal is *above* the threshold, registering for piconet communication.

Similar, claim 39 is directed to the features of claim 1 but in means-plus-function form and was rejected on the same basis. Thus, for the reasons given above, claim 39 is patentable over the cited references. Reconsideration and allowance of claim 39 is respectfully requested.

II. Rejection of Claims 7, 12, 26 and 31 Under 35 U.S.C. §103(a)

Claims 7, 12, 26 and 31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Grandolfo (U.S. Patent No. 7,184,767) in view of Seshadri, *et al.* (U.S. Publ. No. 2005/0037818), and further in view of Watanabe, *et al.* (U.S. 2002/0080855). Each of these claims depend from claims discussed above that are distinguishable and patentable over the cited references and thus should also be allowable.

III. Rejection of Claims 17 and 36 Under 35 U.S.C. §103(a)

Claims 17 and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Grandolfo (U.S. Patent No. 7,184,767) in view of Seshadri, *et al.* (U.S. Publ. No. 2005/0037818), and further in view of Papasakellariou, *et al.* (U.S. Patent No. 7,133,435). Each of these claims

depend from claims discussed above that are distinguishable and patentable over the cited references and thus should also be allowable.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063[QUALP842US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' representative David Franklin, Reg. No. 39,194, at 513-774-0903 or the undersigned at the telephone number below.

Respectfully submitted,

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